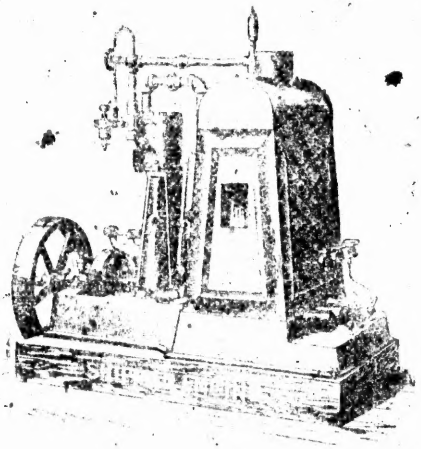
THE SHIPMAN

ACME

AUTOMATIC STEAM ENGINES.

COAL OIL FOR FUEL.



THESE ENGINES ARE PATENTED IN CANADA AND MANUFACTURED EXCLUSIVELY BY

JOHN GILLIES & CO.,

CARLETON PLACE, ONT.

PRINTED BY ALLEN BROS. at the office of the MERCURY,
CARLETON PLACE, ONT.

A Personal Letter.

188

Dear Sir:—In reply to yours *beg to present you with a copy of our new illustrated and descriptive catalogue of our latest model engines.*

If you are now or ever expect to be in want of a small power engine, you will find that every page of this catalogue contains information that will be of practical service to you. If you have not time to read it now, put it away for future reading.

If you wish to know the size, weight, construction, durability, cost of running, amount of care required for the Shipman and Acme Engines, etc., etc., you will find definite information in this catalogue. Every page will interest you.

If you have a friend whom you know is in want of a small power, please send his address to us and we will send him a catalogue.

No person can become an agent for the Shipman or Acme Engines who does not first purchase either a one or two-horse power engine and pay the full price for the same. By so doing he will become familiar with its workings and its good points from actual use, so that the engine can be properly shown and represented by him.

To any such competent person, we can offer profitable employment in the introduction and sale of our engines.

We solicit correspondence.

Very truly yours,

JOHN GILLIES & CO.,

Carleton Place, Ont.

For Whom SHIPMAN and ACME ENGINES are Designed.

PRINTERS, LITHOGRAPHERS, } Presses, Bronzers, Trimmers, etc.

BOATMEN, YACHTMEN, } Special Boat Engines.

STOREKEEPERS, RESTAURATEURS, } Air Fans and Ventilators.

FARMERS, Pumps, Churns, Threshers, etc.

DRESSMAKERS, Sewing-Machines.

CONFECTIONERS, Mixers, Freezers, etc.

BOOKBINDERS, Folders, Trimmers, etc.

LAUNDRIES, Washing, Drying, Ironing.

BLACKSMITHS, Blowers, Lathes.

STEVEDORES, Hoisting Power.

ELECTRICIANS, Dynamos.

INVENTORS, All Kinds of Machines.

MECHANICS, MACHINISTS, } Lathes, Saws, Planers, etc.

FLORISTS, GARDENERS, } Pumps, Sprinklers.

GROCERS, Coffee Roasters, Mills, etc.

BOOT AND SHOE MAKERS, All their Machines.

TAILORS, Cutting and Sewing.

STATIONERS, Envelope and Embossing Machines.

BAKERS, Mixers.

DENTISTS, Lathes, Fillers.

PAINTERS, Grinding and Mixing.

SPECIALLY ADAPTED FOR THE USE OF

CREAMERIES.
CARPENTERS.
PLUMBERS.
BUILDERS.
DYERS.

CHEESE FACTORIES.
CLOCKMAKERS.
JEWELERS.
PUMP MAKERS.
ASSAYERS.

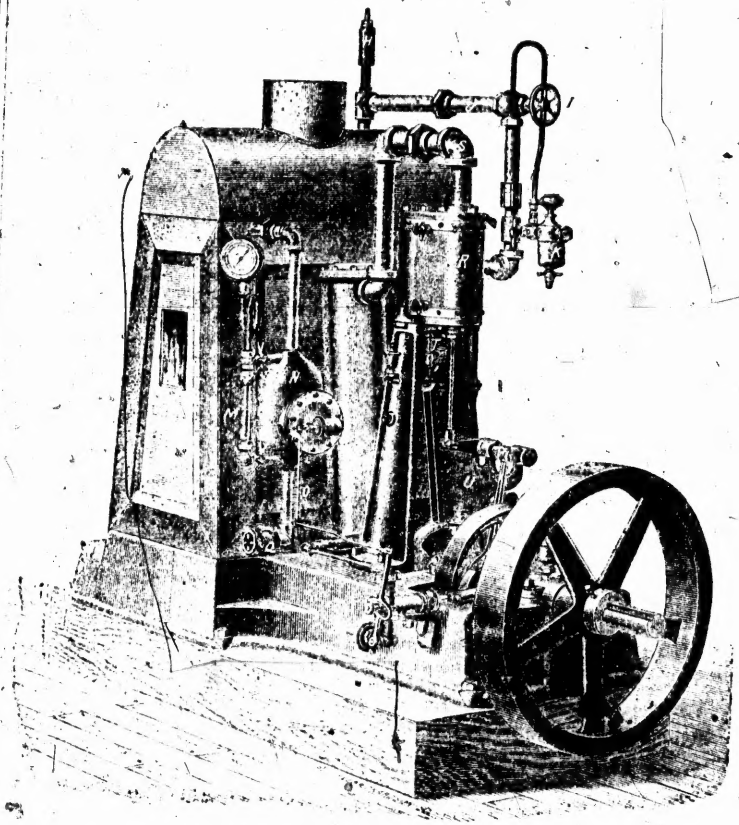
CARPET CLEANERS.
CARRIAGE BUILDERS.
AWNING MAKERS.
FURNITURE MAKERS.

SAWYERS.
BRASS FINISHERS.
BOX MAKERS.
WOOD WORKERS.

AGENTS EXHIBITING AGRICULTURAL IMPLEMENTS IN OPERATION AT EXHIBITIONS, ETC.

SHIPMAN ENGINE, NO. 2, 2-H. P., BOSTON MODEL.

FRONT VIEW.



The Engine for Mechanics, Manufacturers and Farmers.

The Letters engraved on the above cut of the engine correspond to those attached to the names of parts given below.

H. Pop Safety Valve. This should be made to work frequently, either from steam pressure or by lifting the top with pinchers, or nippers, or fingers. **I.** Throttle Valve. **J.** Steam Pipe from Boiler to Engine Cylinder. **K.** Sight Feed Lubricator for Cylinder. **L.** Steam Gauge. **M.** Water Glass. **N.** Float Chamber. **O.** Pump Regulator Rod connecting the Float in Chamber to Pump regulating Cocks. **P.** Pump Strainer. **Q.** Blow off Valve and Drain for Float Chamber. **R.** Exhaust Steam Heater. **S.** Exhaust Steam Pipe to Heater. **T.** Piston Rod. **U.** Piston. **V.** Cut off Cocks to Water Glass. These are to be closed if at any time the glass should break when steam pressure is in boiler.

This cut represents both the 1 and 2-H. P. Boston Model Engines. For prices and full particulars see first page.

Description of the Shipman and Acme Engines.

Shipman Engines Nos. 1 and 2.

The boiler is coil, ring or tubular according to size, each ring or tube being tested to 300 pounds pressure. The top and bottom and end connection are made of malleable iron.

In addition to the exhaust steam feed-water heater there is a close coil heater with necessary connections.

The feed water is thus heated to a very high temperature before it enters the boiler. In this way the greatest possible economy of fuel is obtained.

From thirty to fifty pounds steam pressure can be got from cold water in the boiler in from five to seven minutes.

The boiler is tested to a pressure of 300 pounds. A boiler constructed like this boiler cannot explode. It is absolutely safe.

The construction of the engine. Every part of this engine is made of the material that is best fitted to stand the wear and do the service required of it. Every part of the engine is made with special tools and to gauge, and every essential part is interchangeable.

All the wearing parts are provided with a "take up," or what is sometimes better, can be removed and a new part supplied.

LUBRICATION. The cylinders are oiled with a sight feed cup. The shaft, the uprights, and all other parts are oiled with glass oilers with trimmings.

HOW FINISHED. The heavy parts of the engine, like the base, the uprights, etc., are painted and the bright parts polished.

The pump and its connections, the steam gauge and all brass fittings are of the best quality.

AUTOMATIC BOILER AND ENGINE. This engine and boiler are automatic, self-regulating, and if furnished with an uninterrupted supply of oil and water will continue to work alone and unattended indefinitely.

The Boston Model Shipman Engines are furnished with the Diaphragm, Atomizer, Feed Water Pump and Automatic Regulator, Pop or Safety Valve, Crosby Steam Gauge, Glass Water Gauge, Blow-off Pipe, etc., etc., and are all attached to boiler and engine.

The Shipman Engine to Light and Heat.

Report of the Engineers of the Edison Electric Light Company.

SOUTHERN EXPOSITION, LOUISVILLE, KY., October 25th, 1884.

The undersigned, Engineers of the Edison Electric Light of the Southern Exposition, take pleasure in testifying to the value and efficiency of the Shipman Engine, one of which has been in operation since the opening of the Exposition (seventy days), and at the solicitation of the Agent we have during that period kept it under observation and believe it to be prompt and reliable, easy of management, and the very best light engine we have ever met with.

(Signed),

C. M. HENNIS, *Chief Engineer.*

JOHN DEERS, S. SWAIN, ALEX. GRIFFITH, PHIL. T. CARROLL, J. KHOE, S. P. LINER, } *Engineers.*

LOUISVILLE, KY., October 25th, 1884.

Major E. A. Burke, Director General, New Orleans, La.

DEAR SIR:—The Shipman Engine has been exhibited in the Southern Exposition. The fuel used is kerosene oil. There was no objection made by the Insurance Companies. It attracted an immense amount of attention, and I consider it one of the most remarkable triumphs of inventive skill ever designed. It will add interest to any machinery collection.

I remain, yours truly. BENNET H. YOUNG, *President.*

Office of the New London Jenny Electric Company.

NEW LONDON, Conn., July 26, 1885.

Shipman Engine Co., Boston, Mass.:

GENTLEMEN.—I have much pleasure in stating that I have used the No. 2-H.P. Shipman Engine, bought of you last Fall. I was able to light six rooms in my house perfectly, using at times twenty lamps, 16 candle power.

The furnace belonging to the house not being able to heat it, I had the engine exhaust carried through three rooms, which heated them well through the coldest weather. When heating only, the cost was 18 cents for 12 hours.

I have had the engine running three weeks without once stopping, oftentimes being away whole days at a time, but never having the least trouble or accident and consider them the simplest and cheapest small engine made, both for lighting and heating.

From yours truly, A. S. HICKLEY.

A few months ago a manager of one of the largest electric light companies said, after watching the Shipman 2-H.P. engine and the incandescent lights in operation for several hours with unvarying steadiness of speed and perfect evenness of light. "The Shipman kerosene oil, automatic, high speed engine makes isolated domestic lighting possible."

One of our first 2 H.P. engines was purchased by a gentleman in Pennsylvania; he built a little house several yards from his residence, for the dynamo and the engine. The engine being automatic, furnished the power without the care and attention required of other engines. The dynamo used was the U.S. Weston 30 light machine.

The gentleman has been so well pleased with the experiment with our first engine that he has already built a very substantial and somewhat elegant house for his electrical plant. Power for this new plant is to be furnished by our new 2-H.P. engine. A system of wires has been arranged whereby he will, from his own chamber, put out the fire when he wishes to stop the engine.

We have a very large correspondence concerning the ability of our engine to run a dynamo for electric lighting purposes. The Shipman Engine is a high speed engine, and, being automatic, in its fuel and water supply, it can be successfully used for isolated electric lighting.

One difficulty in the way of making electric lighting successful with a small power engine, has been the want of a proper dynamo. We now expect to have running in our show room, in May, a ten light 16 candle power dynamo. This machine, like our engine, will be perfectly automatic. We expect to furnish a dynamo, ten lamps, (which consist of the globe, carbon and brass connections,) the lamp cut-outs, switch at dynamo, safety plug, insulated wire, etc., etc., with full instructions for putting the lamps into the house with our 1-H.P. engine complete, ready to run, for $375.00.

Special Announcement.

THE SHIPMAN and ACME ENGINES are no longer an experiment. They are popular and desirable above other small power engines, because:

1st. **Its low price** makes it possible for men of small means to own it.

2nd. **Its economy** in the use of its fuel.

3rd. **It is automatic** in its fuel and water supply and governing.

4th. **It consumes only** the amount of fuel it requires for the power taken.

5th. **It is absolutely safe** from explosion.

6th. **It puts out its own fire** and relights it again when more power is needed.

7th. **The moment** the work is done, the fuel expense stops.

8th. **Its fuel has no dust** or dirt, and the fire never has to be "drawn."

9th. **If you have only** one hour's work to do, you can get up steam pressure of 100 pounds, do the hour's work, put out the fire, and the consumption of fuel will not exceed one hour and seven or ten minutes, at a cost not to exceed three or five cents per H. P.

10th. **You can be your own** engineer and fireman, and run your own machines.

11th. **If the oil and water supply** is uninterrupted, the engine will take care of itself.

12th. **The best material**, brain and money go into these engines to make them precisely what those who use them require.

A Suggestion of Pleasure and Rest Obtained for About $300.

THE SHIPMAN OR ACME ENGINE FOR PROPELLING BOATS.

SOME OF THE ADVANTAGES IT HAS OVER MOST OTHER STEAM ENGINES FOR USE IN BOATS.

1st. **Its Fuel.** Convenience and little space taken.

2nd. **No coal dust.** No cinders.

3rd. **Automatically regulated fire.** If greater speed is required at any moment, the fire will immediately give any desired steam pressure. This added pressure can be continued for five minutes or five hours.

4th. **The instant that less speed** or power is required, the fire is reduced and expense reduced proportionately.

5th. **No coal or wood** fire to "draw."

6th. **Only the amount of fuel** is consumed that is required to give the power taken.

7th. **If little speed is wanted** and only little power required, the consumption of fuel is in the same proportion.

8th. **The little space occupied** in the boat by the boiler and engine.

9th. **The little height in the boat** of the boiler and engine.

10th. **The "Shipman" or Acme causes the least motion** in the boat, has the most convenient fuel, and is the most popular engine for small boats in the world.

SPECIAL FEATURE. The Shipman or Acme Engine and boiler are connected and ready to set into the boat together, and when located are ready to run.

Approximate Prices for Steam Yachts, Complete.

A Steam Yacht 22 feet long, 4 1-2 feet beam, 22 inches deep, white oak frame, cedar planked, smooth built, ash finished, painted or varnished, seating capacity for ten or twelve persons, with awning, rudder, propeller, shaft, bearings, and Shipman Engine, No. 1, delivered on cars in Carleton Place ready to put into the water, complete, ready to run, will cost about $300. Speed from four to seven miles, according to current and load.

A 2 H. P. engine is admirably adapted to put into this boat, and will give from six to nine miles speed per hour, according to load and current. Price, Boston Model, about $400.

A Steam Yacht 25 feet long, 5 feet beam, 2 feet deep, built as described above, with 2-H. P. Engine, delivered on cars in Carleton Place, ready to put into the water, complete, ready to run, price about $500. Speed from six to ten miles per hour, according to load and current.

The above boats are most thoroughly built, and are safe and durable. We can furnish a cheaper built boat at a less price.

The Shipman or Acme Engine for the Boat you Already Have.

If you have a row boat, even if it is not of the most approved style, you can put a Shipman or Acme Engine into it and get the same amount of pleasure and rest from your boat that others may get who are able to have special boats built for the engine. If you live near a still river or a pond you can easily have a steam yacht.

We will furnish the Boston or Acme Model, No. 1, 1-H. P. Boat Engine, with propeller, shaft, bearings, etc., ready to put into the boat you have, with full instructions for doing everything, for only $175. The Boston Model, No. 2, 2-H. P. engine, for $250.

If you or any friend are in want of a boat and engine, or an engine alone, and we can be of service to you, please advise us. Three or more friends can form a club and purchase an engine together, thus making the cost to each very slight.

JOHN GILLIES & CO.,
Carleton Place, Ont.

Some Testimonials.

We have a large number of letters (handed us by Shipman Engine Company) from parties who have the Shipman and Acme Engines in their Boats and Yachts.

S. LAKE WEIR, FLA., January 22, 1886.

Shipman Engine Co., 55 Franklin St., Boston:

GENTLEMEN,—To say I am pleased with the boat and engine is putting it *very mild.* Am more than pleased. Can travel the length of our Lake, 6 miles, with 20 people on, in 40 minutes, seems to go as fast with a load as without, with only 60 pounds of steam on. Wish Mr. [illegible] a [illegible] increase.

Respectfully yours,

(Signed) ALBISTON & PINNEY.

Per J. H. ALBISTON.

P.S.—The Boat in question is 30 x 6 [illegible], with a 2 H. P. Shipman Coal oil Engine.

Read what C. HAMILTON, Esq., Collector of Customs, at Kingston, says about the Shipman Engine.

KINGSTON, ONT., January 11, 1886.

Jas. Kennedy, Esq., Carleton Place.

DEAR SIR,—Yours of the [illegible] received, and in reply beg to say that I have had a No. 1 Shipman Engine running in my boat [illegible] season and a half. The boat is 25 ft. long by [illegible] beam, will carry six persons [illegible] smooth water [illegible] or two persons [illegible] boat, I have no difficulty in [illegible] and keeping [illegible] I have not expended one dollar in repairs on [illegible] required. [illegible] work [illegible]. I have no doubt the [illegible] would [illegible] required. I have not seen its equal. Should you be in this city I shall be happy to show you boat and engine.

[illegible] C. HAMILTON.

The following letter was an answer to an inquiry made by Messrs. Powell & Douglass, Boat Builders, of Waukegan, Ill., regarding the Shipman Engine. They did not care to use the engine for their boats unless they were assured, by a disinterested party, that the engine was a success.

JAMES C. STRONG,
U. S. Com'r.

HENRY W. BRENDEL.

LAW OFFICE OF STRONG & BRENDEL,
No. [illegible] Buffalo, N. Y., Nov. 6, 1885.

Messrs. Powell & Douglass, Waukegan, Ill.:

GENTLEMEN,—Your favor of the 3rd inst. rec'd. The engine in the steam yacht "Fire Fly," is a Shipman 2 H. P. As to her making 10 miles per hour, I cannot say—we have no *still* water here upon which to try her. She has only been in the water since Sept. [illegible], but since then we have kept her going almost constantly in our river. The current in the river from Black Rock (where I [illegible] her up) into the Lake or rather from the Lake down to Black Rock runs in places nine miles per hour. [illegible] would be seven, yet she will run up it very nicely. I have taken [illegible] and run up to the Dunning Light House in the Lake, a distance of four miles, right through this current, in an hour and three minutes. The place where it runs [illegible] an hour would be a distance of perhaps [illegible] yet she went right up it, with very good speed.

The most accurate test, perhaps, that I have given her, [illegible] her from the Oakfield Club House, on Grand Island to Black Rock, a distance of six miles, against an average current of [illegible] miles per hour, in an hour. She has done this quite often, and sometimes with [illegible] a head wind. You see, the difficulty is in accurately calculating the current. I have given you the best judgment of those who should best know. I cannot try her speed in the Lake, as there are no *measured* distances I can run. This [illegible].

In regard to keeping up steam, I [illegible] upon the coil I burn. With the barrel I had prior to the one I am now using, we could not keep the steam above [illegible] with open throttle, but with the present [illegible] we have no

trouble in keeping 100, 105, 110 or 120. Between 105 and 110, with throttle full open, and in running around Grand Island, a distance of 36 miles, on last Tuesday, the steam did not vary 10 pounds.

The boat is 25 feet long, 5 foot beam, and 2 ft. 4 in. deep, and draws 18 inches aft and 6 forward, light, and 24 inches aft, and 10 forward, with 10 persons in it. The wheel was made by Farrar & Trefts of this city, and is three bladed, 20 in. diameter, and 30 inches lead. I have tried to count the revolutions it makes, but none of us can count fast enough.

Excuse the length of this letter, but I rec'd your catalogue today, and I am so much interested in knowing all about such things, and I have the boat boy to you all I can. I am somewhat out of Le Grip, and purchased this boat for my own recreation, and am hoping to enjoy it very much next summer. My only wonder is that I have remained so long without something of the kind.

Respectfully Yours, JAMES C. S. JONES.

WHAT PEOPLE SAY

WHO ARE USING OUR 1 AND 2 H. P. MARINE ENGINE.

Capt. Le Ferris, of New York City, has a boat built of 1 inch cedar planking, with keel, stern and stem posts of best seasoned white oak. All copper fastened. It is 25 feet long, 5½ feet beam, and about 3½ or 4 feet deep, and propelled with 2 H. P. Model.

It has two water tanks, each holding a barrel and connected so as to make the weight balance. Condenser is made of 1 inch galvanized pipe. The best speed the boat has made was 9 miles in 50 minutes, and it will make about 9 miles with ease. It will seat 12 persons by taking camp chairs on board, and it has been run since about June 1st.

A gentleman who has purchased a boat 22 feet long, 4½ feet beam, and 20 inches deep, and one of our No. 1, ½ H. P. Model engines in it, writes as follows:—

"I can tell you what I have done. I take [illegible] boat, and another boat [illegible] gons which was quite heavy. I took the party up the [illegible] a strong current where it was running [illegible] The current is so strong it is all a man can do to get a row boat through with [illegible] oars."

The following letter from Capt. Fred. P. Cole, Hawthorn, Fla., was written to us without solicitation: in fact we had forgotten that Capt. Cole had one of our Model 1 H. P. boat engines. The captain claims for it much more speed than we do. The letter is so good that we copy it entire:

HAWTHORN, FLA., Nov. 29, 1885.

Shipman Engine Co., Boston, Mass.:

GENTLEMEN,—I cannot help writing you to tell you about my little steam launch. The engine beats anything I ever saw. She runs beautifully, but I had no idea of the power she has until this morning, when I towed a barge loaded with oranges across Orange Lake against a strong wind and sea.

The barge is 22 feet long, 8 feet wide, drawing 12 inches of water. It was wonderful. I do not understand how it is possible for so small an engine to do such work. I think that I ought to have a little larger propeller and I wish that you would send me one. The one I have is 12 inches in diameter. I think one about three or four inches larger would work better with my engine.

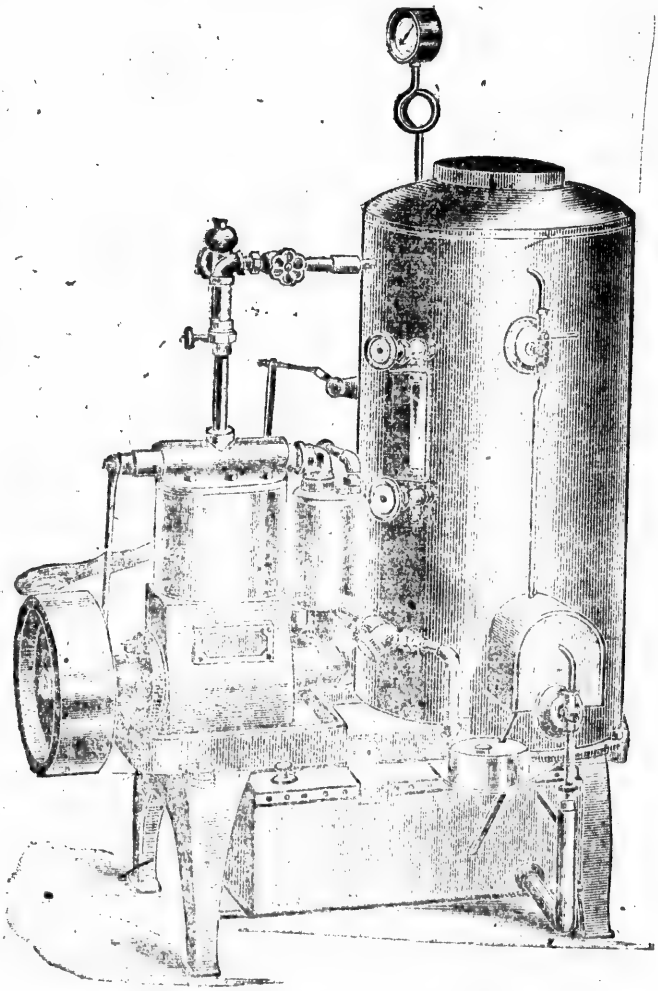
I am perfectly delighted with my boat. She is perfect every way. [illegible] thing works nice and I can make 10 miles per hour all day long with 90 pounds steam, and she will not vary a hair. If you send me that propeller, direct to

CAPT. FRED. P. COLE,
Hawthorn, Fla.

The boat referred to above is 21 feet long, 3 feet 10 inches beam, and 20 inches deep. It had a 12-inch propeller. Now the captain has a 14-inch propeller.

THE ACME ENGINE NOS. 1 and 2.

FRONT VIEW.



The above cut represents the Acme Double Cylinder Engine with latest Improvements. Strongly recommended for Marine Purposes.

Description of Acme Double Cylinder Automatic Safety Engine.

The Engine is an upright, Double Cylinder, Single acting Engine, with Cranks [illegible] to each other. The Piston being 2 [illegible] times the stroke in length, form [illegible] guide. The Wrist [illegible] slightly below the centre of the piston [illegible] The main bearings are 2 times the diameter [illegible] the Steam [illegible] [illegible] The Cylinders [illegible] The Valve [illegible] [illegible] on the top of [illegible] [illegible] [illegible] [illegible] the admission of steam to [illegible] [illegible] consisting of only four pieces, and is [illegible] to a high speed engine, in all [illegible] [illegible] is accomplished by [illegible] [illegible] which the cranks dip at every revolution [illegible] [illegible] but throw the oil to every part inside the case, [illegible] low pistons getting a good supply at each stroke, also [illegible] [illegible], whence it is wiped by the pistons. As this oil [illegible] [illegible] over, and the oil supplied to the [illegible] [illegible] to the Crank Case at last. [illegible] and the outer bearing of the Valve Stem [illegible] while engine is running.

The Boiler is of the [illegible] type [illegible] economical [illegible] heater, and has a very [illegible] by the intensity of the fire, and [illegible] [illegible] the fire, which [illegible] [illegible] The water being carried in a series of rings connected by [illegible] [illegible] break [illegible] [illegible] The boiler is double jacketed to prevent loss of heat [illegible]

A larger ring or dome on the top of the boiler affords an ample supply of well dried steam. The water supply is maintained by a pump worked directly from the main shaft, which forces the water through a coil heater [illegible] [illegible] the Exhaust Steam before entering the water [illegible] of the boiler [illegible] this means the feed water is heated to near or above the boiling point [illegible] [illegible] the boiler, without [illegible] [illegible] mated with cylinder oil or other [illegible]

Each boiler is tested to 300 lbs. hydraulic pressure, and regulator set to carry 110 to 120 lbs. steam.

The supply of water to feed pump is regulated by a ball float in a case attached to the boiler, which by means of levers, controls the amount delivered at each revolution of the engine, and may be adjusted to maintain the level of water in boiler desired, under all the varying loads to which engine may be subjected.

The fuel is kerosene oil of 110° to 115° fire test (this grade giving the best results), atomized by a steam jet and controlled by an automatic fire regulator that [illegible] or cuts off entirely the supply of fuel when the steam pressure reaches [illegible] limit at which the regulator is adjusted. This fire gives a most intense flame [illegible] heat, is easily controlled, makes more even and constant supply of steam from the same amount of heating surface than any other fuel [illegible] [illegible] mingled with air, and it is a matter of doubt which of these two give the [illegible] flame. The fuel is cleanly, no dust, ashes or smoke, when the fire is properly [illegible], and *cheaper than hard coal* at $[illegible] per ton. As it is not subjected to [illegible] heat or flame till it enters the *fire tube* it is as safe or rather much safer than an *oil lamp*.

Our Stationary Engines and Boilers are fitted with Steam Gauge, reading to [illegible] lbs., Water Glass Gauge, Pop Safety Valve and Automatic Fire Regulator, and if the supply of water and fuel is constant, may be run for an indefinite period [illegible] little attention and no noise or jar from lost motion, as all the labor is [illegible] one direction. A *hot bearing* we have never yet known on one of our engines.

A hand pump is provided for filling the boiler when empty and for furnishing a supply of compressed air when getting up steam at the start.

The Marine or Boat engines are supplied with a link motion and lever for reversing, hand wheel, and flange coupling for connecting the propeller shaft, [illegible] capable of being run at high rates of speed and high steam pressure, and are the [illegible] and quickest handled reversing engines in the market.

As the nominal power of our engines is computed on a basis of 70 lbs. [illegible] pressure, it will be seen that they are capable of much higher than the [illegible] duty. At the same time the *Automatic Governor* will not permit the use of more steam than the work requires, and a high expansion in the cylinder gives the most economical results, as it is a well known fact that it does not require as much fuel to raise steam from 70 to 120 lbs. pressure as it does to raise water from 70° to 70 lbs. steam.

These Engines are adapted to all purposes where a light power is required, are almost noiseless in their operation, and can be easily managed by any person of ordinary ability. The workmanship of these Engines is of the best throughout, all parts being made to a system of gauges and templets. And each engine is set up and fully tested under steam before shipment.

The stationary Engines carry their oil tanks under the bed-plate as shown in cut. And there are no joints to make before you can start the Engine except to screw the exhaust pipe into the heater case, and lead a 6-inch stove funnel into chimney or out through a window. A *Boat Oil Tank* is furnished with the Boat Engines to go forward of boiler in bottom of boat.

We are prepared to furnish propeller shafts of steel, *Stern* Bearings of bronze, and two and three blade Propeller wheels for either size Engine, of either brass or cast-iron at reasonable rates when we know length of shaft, etc.

We are also prepared to sell *Engines only* to those who have steam already, or who prefer a *coal-burner*, of either the stationary or marine style on suitable base, at the following rates for net cash, viz:

1 Horse Power	$60.00.
2 Horse Power	$80.00.

These Stationary Engines will have the automatic cut-off governor and fly-wheel. And the Boat Engines will be fitted up with link motion and reversing-lever, and ready to connect the steam and exhaust pipes.

We expect so on to add larger sizes of Engines.

These Engines and Boilers are no experiment, having stood the test of actual service and are the coming engine for light power and quiet running with high economy in the use of fuel.

Correspondence solicited and further information cheerfully given.

Several patents on the novel features of this Engine and boiler are now pending.

Cylinder Oil for the Shipman and Acme Engines.

To obtain the best service from the Shipman and Acme Engines, the best cylinder oil should be used.

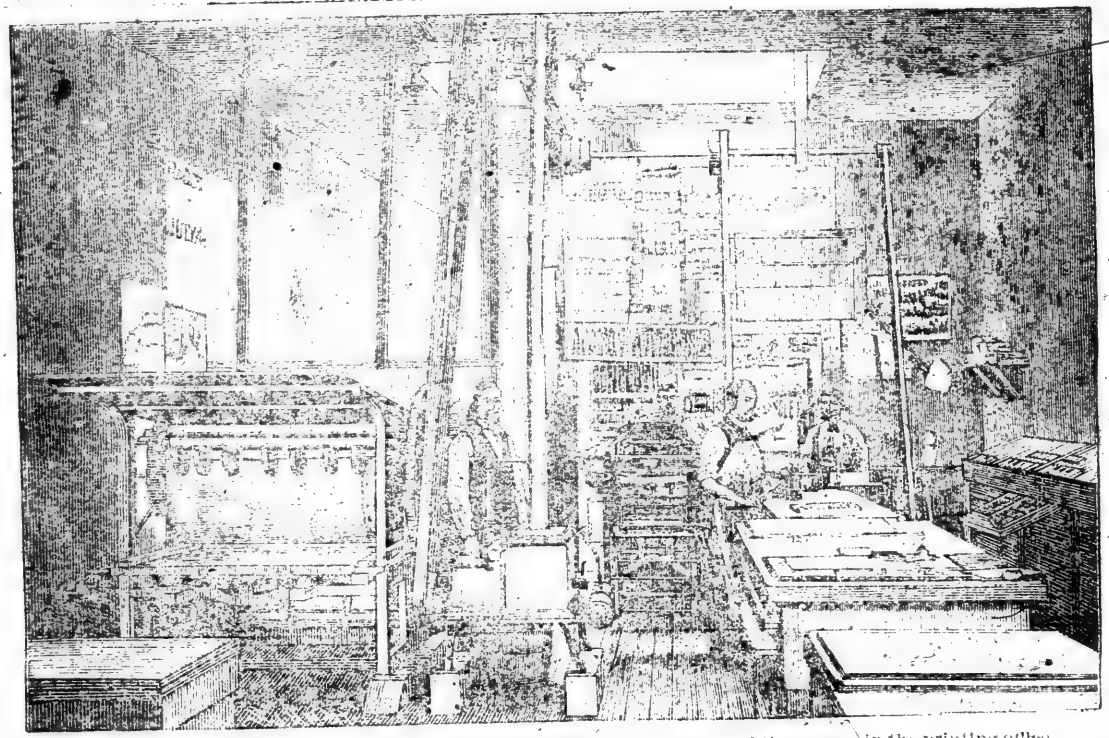
Oil that gums should not be used, and as the heat in the cylinder is much greater than that of ordinary engines, it is best that oil of high fire-test be used.

We can furnish a special brand of 650 fire-test filtered cylinder oil. If you cannot get, in your town, or conveniently, a good valvoline or cylinder oil, we will send, at the lowest rates, and ship by express on receipt of the price.

Coal Oil by the Barrel.

We can furnish those who are using our engines coal oil by the barrel of proper test, which we know to be the best, at the lowest possible price. As the market price changes frequently, we cannot quote a price which shall be permanent. At present the price for the grade of oil required is about 16c. per gallon. It may be less or it may be more. When you want fuel, please write us and we will quote a price.

JOHN GILLIES & CO.,
Carleton Place, Ont.



This cut is made from a photograph of the 112-H. P. Skinner Engine and the presses in the printing office.

The Shipman Engine for Printers.

The following is a letter written by Mr. C. H. JOHNSON, La Grange, Ga., to a firm in Louisville, Ky., whom he knew were in want of steam power.

The letter was not written for publication, or with the expectation that we should ever see it; hence its great value as a true statement of fact.

LA GRANGE, GA., June 30, 1885.

MESSS. M[illegible] BROS., Louisville, Ky.

DEAR SIRS,—The engine referred to by Mr. P[illegible] is a "Shipman," made by the Shipman Engine Co., of Boston, Mass. I have been running it about 7 months, and am better pleased with it every day. In fact, I could not do without it now.

It requires no engineer, burns kerosene oil, and steam can be got up in five minutes, easily. When once started it takes care of itself the rest of the day.

The oil we I supply be about 110 test, and can be had for 7 or 8 cents per gallon in your city.

I have a Number 1 engine, full 1 H. P., and run with it a large 32 by 46 Cranston cylinder and one jobber. This requires more than 1 H. P., but the engine "walks away" with it at 75 or 80 pounds of steam.

Not long since I made a 15-hour Sunday run, and during that time consumed 5 gallons of oil. You will find it the most economical power you can get.

I investigated several kinds of engines before buying. It stands about thus against a gas engine:

Original cost 1 H. P. gas engine, $380.00. Cost of running per hour, about 8 cents.

No. 1 Shipman Engine, 1 H. P., $150.00. Cost of running, about 2 gallons of oil per day, at 7 or 8 cents per gallon. One requires no more attention than the other, and the steam engine is three times as reliable.

I would advise you to buy a 2 H. P. for job presses, although the No. 1 will drive them with ease. It is always best to have an engine about twice the required H. P.

I pay no extra insurance for having this engine in the office. I have a pan under it to catch the drippings, and it is as neat and clean as a lamp.

I don't think you could get an engine that would suit your purpose better, and it will surely pay for itself in a few months.

I have written a card to the manufacturers to send you circular of information. They are straightforward men and you can rely on what they say.

Yours truly, C. H. JOHNSON.

An Explanation.

Please observe the gallon mentioned in this Catalogue is United States measure, not Imperial measure; also, that Canadian coal oil for heating purposes is at least 25 per cent more effective, therefore, when extra quantity and durability of our coal oil is taken into consideration, the actual cost will be very little in excess of American oil, and the basis of expense, as mentioned, will stand in the same ratio.

JOHN GILLIES & CO.,
Carleton Place, Ont.

This cut is made from a photograph of the 2 1-4 H. P. Shipman Engine and the press in the printing office.

A Country Campbell Press and Eighth-Medium Jobber.

(From the Lima, New York, *Recorder*, July 30, 1885.)

[From a column and a half of solid reading matter, descriptive of the engine and its use in the office of the *Recorder*, we have space only for a few paragraphs.]

Mention has already been made in these columns of the Shipman Steam Engine, 4 H.P., now used to drive the *Recorder* presses. Having had the engine in use during the busiest months of the year, and having subjected it to the severest tests which the exigencies of our business demand, we are glad to make a more extended and explicit notice. * * * The oiling is automatic, and the whole machine is self-regulating, and will run for a half day without the slightest attention after being once set in motion.

Occasionally we have been asked if the automatic fire and water regulators perform their duties as intended and are perfectly reliable devices. Our own experience has shown them to be perfectly reliable, and as simple as they are ingenious.

The engine is well made, with steel shaft, hardened steel crank-pin, with compressed babbitted bushing, brass boxes, oil-cups, etc., and the workmanship is of the best character.

When we first put the "Shipman" on the *Recorder* press, we had a Chicago Steam-cylinder seventeen-column news-paper press and a "half-medium" "Gordon," and had more difficulty in running both presses at the same time, taking steam on only a [illegible] turn of the throttle, and of course not using the full power of the engine.

A few weeks ago we exchanged our presses for a new Worcester Country Campbell press and an eighth-medium jobber. The Campbell press is large enough for a seven-column paper, and is heavier and rougher than the old press, and runs much harder. We have no difficulty, however, in running it at the speed of a thousand an hour, with the jobber running at the same time, and could run it 50 per cent faster, if the press stood on a more solid foundation.

This service is performed by the Shipman Engine with only a half turn of the throttle. Working thus, the full steam pressure is [illegible], the water supply regulated, the lubricating performed, and the engine [illegible] speed more [illegible] and automatically, and we never [illegible] anxiety.

Our thorough test of the Shipman Engine satisfies us that it is the best power for the printer having no more than three presses to drive, that there is in the market. Steam is got up quickly, maintained without attention at a nominal expense and when the work is done the turning of a little lever puts out the fire and all expense ceases. By a [illegible] we placed on the Jobber we find it advantageous to use it, when we have occasion to use engine using coal or wood, the trouble and expense of getting up steam would compel the printer to run his Jobber by foot power.

I use less than 3 gallons of oil for all the power I require for 10 hours.

Last Wednesday we ran off the regular edition of the *Recorder*, one job 300 impressions, one 100, one 300, and one 900 impressions, with one gallon of oil, costing 37 cents. The printers will readily understand that it took about as much time making each job ready as it did to run it off and oiling, which time the engine was running, so that if the minds of impressions might have been made with the same consumption of oil.

In short, the Shipman Engine is a wonderful piece of machinery, and excites wonder and admiration in all who have seen it. Many people have visited the *Recorder* office to see it run and all unite in pronouncing it a marvelous piece of machinery and simply perfect.

It has given us the most perfect satisfaction, and if we could not get another we would not part with our Shipman for three times what it cost. We advise any of our printer friends wanting power, to get a Shipman by all means.

A Campbell Press, 31 x 46.

EDINA, MO., Dec. 18, 1885.

Shipman Engine Co.:

GENTLEMEN—I have been using the engine I purchased of you about 7 months, and I suppose by this time you would like to know how I like it. I have not at any time regretted purchasing it.

It does the work well and bids fair to last for a long time. I have worked off my edition of 1625 copies in 50 minutes, but that is faster than I allow it to run. I wish I had heard of the Shipman long ago. It is a great curiosity, nothing of the kind ever before seen in these parts. Everything is in perfect order. The engine I have is a 1 H. P. Model. The press is a Campbell, 31 x 46.

Yours Respectfully, GRIFFIN FROST.

BRIDGEWATER, MASS., Dec. 14. 1885.

To Shipman Engine Co., Boston, Mass.:

GENTLEMEN—Your favor of this morning is at hand, and in reply would say that I have one of your 1 H. P. Model engines in my office and have had it in use about two months.

I have two presses, an 4 and ½ medium, of Gordon make, and when both are running I have to carry the enormous pressure of 30 pounds of steam.

I can't accommodate you by pointing out any defects in the engine, for so far it has given perfect satisfaction.

I had, by advice of your agent here, Mr. Copeland, an air pump put on before the engine left the manufactory, and it has added much to the completeness of the machine. The cost is small and the getting up of steam made a much easier and quicker matter.

I hope you may continue in your good work until the "Shipman" becomes the favorite power in the land. Yours, etc.,

[Signed] HENRY T. PRATT.

The Acme and the Gordon Presses.

(From the Newport, N.H., *Argus.*)

A few months ago we purchased a steam engine called the "Shipman," and are so pleased with it that we cannot forbear giving a brief description.

Its extreme floor space is only 30 x 23 inches. The fuel is kerosene oil of a low test. The fire is formed by the pressure of steam through an atomizer, which throws the oil in a fine spray in the fire-box, causing an intense blast of fire.

Steam is thus raised in from 5 to 10 minutes. By means of the diaphragm, the fire is controlled so that an even pressure of any desired amount can be carried. The water is taken into the boiler by a pump. Connected with the pump is a water regulator, which causes the water to pass into the boiler just as needed.

In brief, the engine in many respects is a wonderful machine, and runs both our presses—the "Acme" and a "Gordon"—at the same time, like a little giant, and at an expense 80 per cent. less than we ever got them turned by hand.

[NOTICE.—The engine owned by the *Argus* is one of the earlier Shipman Engines, and not one of the present improved make.]

The Shipman Engine for Agriculturists.

MEXICO, N. Y., January 9th, 1886.

Shipman Engine Mfg. Co., Rochester, N. Y.:

GENTLEMEN,—The No. 2 (2 horse) Shipman Engine bought of you last summer for Oswego County continues to do good service and give satisfaction.

This engine, as you know, was bought for the purpose of driving a force pump to supply water to the Oswego County Insane Asylum from a spring 190 rods from the building, through 1½ inch wrought iron pipe and elevate it 128 feet into reservoirs holding about 4,000 gallons, located in the tower of the Asylum. The work required to be done was submitted to you and to one of the largest manufacturers of force pumps in the country. You at once said your engine would do the work, if a force pump of proper size and sufficient strength could be obtained. The first pump we tried the gearing snapped like a pipe stem before the water reached the building and so with two more. Finally we had one made to order, according to our idea of what it should be, which proved to be all right, and since then there has been no further trouble. At no time was or has the engine been at fault, for it would at times walk away with the pump with ease until it crushed it. They fill their reservoirs twice a week, taking about five hours time and five gallons of oil. Of course the engine uses much more oil here than in running ordinary machinery, for the reason the strain upon it is heavy and continuous from the time it starts until it is done.

But few people realize the power it requires to drive water 3135 feet (over half a mile) through 1½ inch pipe, (pipe should not be less than 2 inch) and elevate it 128 feet. Even men who have made force pumps for many years do not seem to comprehend it.

Yours truly,

B. S. STONE & Co., Hardware Merchants.

BROCKPORT, N. Y., January, 1886.

To the Shipman Engine Mfg. Co., Rochester, N. Y.:

DEAR SIRS,—We can grind 5 to six bushels of corn per hour with the 2 horse engine and 12 inch Burr Stone Mill, using 2½ inch belt. Could do more by using 3 inch belt from engine to counter shaft. She drives our 3½ Gordon & Degarmo Feed Cutter to its full capacity on stalks or hay. Understand I grind so as to make meal, not crack the grain.

Yours truly,

FRED. PALMER.

AVON, N. Y., January 8th, 1886.

To the Shipman Engine Co., Rochester, N. Y.:

DEAR SIR,—I desire to report upon my engine—a 2 horse power Shipman—used for elevating grain. I can elevate 3,000 bushels in 10 hours at an expense of 7 gallons cheap kerosene, with little or no care. I have had considerable experience in steam elevating and also tread power, and consider this the best by all odds. A boy 10 years old can run it as well as an experienced hand, in fact it beats anything I have ever seen in the shape of an engine or any other motive power. Have used it constantly since October. You are at liberty to use this if you desire.

Yours truly,

W. WHITMORE, Avon, Livingston Co., N. Y.

Grinding Apples, Sawing Wood.

BEDFORD, N.H., Dec. 25, 1885.

Shipman Engine Co., 55 Franklin St., Boston:

GENTLEMEN:—I purchased one of your 2 H. P. Shipman engines early in the Autumn, to grind apples for cider. It has done the work to my entire satisfaction.

Heretofore I have ground with two good horses on sweep power, but it was more than they could stand, and they could not run my mill with much more than one-half the speed as the engine.

I have ground with the engine this fall, about 9 thousand bushels of apples, and on an average it grinds about three bushels per minute, and could grind faster than that with a better cutter. Mine is old style.

After I finished making cider, I purchased one of Gray's circular saws and went to sawing wood, and must say it beats all the power I ever saw for that business, and will saw as fast as men can handle the wood. You cannot check it. The saw is 24 inches with 150 pound balance wheel.

You can refer any one to me and I will tell it just as it is.

Yours very truly, W. C. PARKER.

Cutting Sorghum, Grinding and Shelling Corn.

WOODVILLE, MISS., Dec. 18, 1885.

Shipman Engine Co., 55 Franklin St., Boston:

GENTLEMEN:—Some time ago I promised to write you what the Shipman 2 H. P. would do, after I had tried it sufficiently to know whether it was a permanent success or not. I give you a few results as a fair sample of work that it can be relied on to do constantly.

A SAMPLE MORNING'S WORK.

In 18½ minutes I had, from cold water, 100 pounds steam pressure as indicated on the steam gauge. I oiled up and cut 36 bushels of sorghum (well packed from one to two inches on cutter 9 inch blade) in 27½ minutes.

Belts shifted, mill oiled (12 inch French Buhr stone) and 27 pecks of first-class meal ground, and shelled 4½ bushels of grain in the meantime without stopping the mill in 2 hours and 8 minutes.

Yesterday I tried it, 115 pounds steam, to see what it could do, and cut 4½ bushels of first-class meal per hour. It drives a thresher with a 14 x 25 inch iron cylinder, 450 revolutions per minute, as fast as a man can feed it carefully.

The "Shipman" is like every other engine, the more work, the more fuel. It requires very little fuel to cut sorghum. It is like an ordinary lamp, not at all dangerous if carefully handled, but not as dangerous as a lamp if foolishly used. I would say that it was thoroughly safe in any careful person's hands, and I can hardly see how harm could be done.

I refer to Hon. H. S. Van Eaton, Member of Congress, Hon. T. C. Noland and many others, as to the correctness of my statements.

Truly your friend, J. STUART McGEHEE.

NOTE.—We wish to say that Mr. McGehee furnished us the above facts without our solicitation. He has used the engine for several months, and he has made his own tests in his own way, with such machinery and doing such work as he had to do with the engine.

SHIPMAN ENGINE CO.

The Shakers and the Shipman Engine.

Running Sewing Machines.

"*The Manifesto*," the official monthly magazine of the United Societies of the Shakers in the United States, published at Watervliet, Albany Co., N.Y., in its issue for July, 1885, contains nearly one page of matter describing the Shipman Engine used by the Sisters in running Sewing Machines.

We make the following extracts from "*The Manifesto*":

A VERY ECONOMICAL AND WONDERFUL STEAM ENGINE ENTITLED "THE SHIPMAN ENGINE."

The Shakers, of Watervliet, Albany Co., N.Y., have for some months been using a No. 1 "Shipman Engine," rated at full one-horse power, to drive from 7 to 8 sewing machines: the power is ample, and no doubt is sufficient to drive still more machines, if desired.

The Engine works more than satisfactorily, yes, charmingly, requiring no engineer; it is attended to by one of the Sisters, a few moments, about four times a day, simply to supply the oil, and see that the water is duly supplied, without interruption by the engine's pump. Said engine is a wonderful David of a giant.

The Engine differs from all other Engines in these points: 1st. It requires no engineer. 2d. It is absolutely free from fire or explosion. 3d. It can be started in the morning and takes care of itself until night, with only a notice of a few moments two or three times. 4th. It consumes only the amount of fuel required for the power taken. Our engine, No. 1, drives 7 sewing machines 16 hours, with five gallons of kerosene oil, at a cost of 32½ cents. 5th. When the engine stops, instantly expense stops, as it puts out its own fire, and lights it again when necessary.

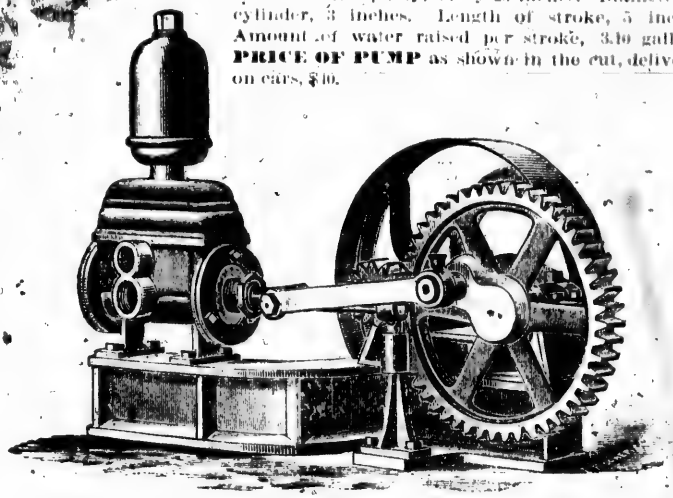
We publish this for the benefit of all who may see the same and desire a small practical power. The same is published without the knowledge or solicitation of the Company, by those who would desire to be benefactors.

(Signed,) THE SHAKERS.

THE "ALERT" DOUBLE-ACTING, HORIZONTAL FORCE PUMP.

The "Alert," No. 4, is a double-acting, horizontal force-pump. It is mounted on an iron frame with gearing and pulley. The gear is in proportion four to one of the pinion. If the pulley on the pinion shaft has a speed of 200 revolutions per minute the pump will make 50 revolutions per minute. For constant service this is fast enough.

Floor space of the iron frame to the pump, 14 by 26 inches. Diameter of cylinder, 3 inches. Length of stroke, 5 inches. Amount of water raised per stroke, 3.10 gallons. **PRICE OF PUMP** as shown in the cut, delivered on cars, $40.



The Shipman Engine, No. 1, 1 H. P., either Boston or Acme model, is admirably fitted to work this pump.

The "Alert" is a thoroughly good power pump. This we have learned from actual practice. It can be safely used against a pressure of 80 to 125 pounds per square inch.

We are now using these pumps in raising water 145 feet from water level in well to top of tank. We need to reduce the speed of pump for these great elevations.

The "Alert" is specially adapted to be used with the Shipman Engine to raise water to the upper stories of buildings, or tanks at railroad stations, for barns and cattle ranches.

The "Alert" is always fitted for wrought-iron pipe, unless otherwise ordered.

If you wish to raise water with a force pump for any purpose, write us full particulars.

THE SHIPMAN OR ACME ENGINE FOR PUMPING WATER.

These engines are specially adapted to pump water for farm and city homes because they can take care of themselves.

How to determine the amount of power required to pump a given quantity of water a given height? One gallon of water weighs about eight and one-half pounds; therefore, if a pump is passing ten gallons of water per minute and lifting it one foot, eighty-five pounds per minute of power will be required to do it; lifting it ten feet, ten times eighty-five pounds.

How to determine the quantity of water that can be raised with any given size pump? We speak of a cylinder as having a certain diameter and of a piston as travelling a certain number of inches each time it moves up and down.

Now if we can know how many feet a pump piston will travel in one minute, at a given number of revolutions, and how much water the cylinders can take in and give out each time the piston makes a "round trip," we can then determine the amount of water the pump can deliver at any given height and the necessary power in the engine to do it.

To make this rule perfectly understood we will give an example and work it out with the Alert Pump, No. 4. This is a **double-acting pump** and has been designed and built to use with our engines by **The Gould Manufacturing Company, Seneca Falls, N. Y.**

If the Pump has a three-inch cylinder, and the piston has a five-inch stroke and travels in the cylinder—down and return—50 times per minute, how much water will it deliver from a well, lifting it 25 feet and forcing it into a tank 75 feet above the pump, making a total elevation of 100 feet, and how much power is required to do it?

A cylinder three inches in diameter has an area of 7.0686 cubic inches. Multiply this area, if it is a double-acting pump, by twice the length of the piston stroke, which in this case is 10 inches, and this will give you the amount of water raised per stroke, which is 70.686 cubic inches. Multiply this result by 50, the number of strokes per minute, and you have the quantity of water raised in one minute, which is 3534.3 cubic inches. There are 231 cubic inches in a gallon of water; and if you divide the last product by 231 it will give you 15.3 gallons of water raised per minute. Multiply this amount by 60, and it will give you 918 gallons, the amount of water raised per hour.

Now to ascertain the power required to raise this water 25 feet and elevate it 75 feet from the pump. Multiply the number of gallons raised per minute, namely, 15.3 by 8.35, which is the weight of a gallon of water, and you have 127.755 pounds. Now multiply this product by 100, that being the entire height the water is to be raised, including the distance both below and above the pump, and then divide this product by 33,000, which represents the number of pounds one horse power will lift in one minute, and you have as the required power 12.775-33,000 horse power.

Now allow for friction of water in pipes, and friction of machinery. When this is added you will require fully two-thirds horse power to do the above work. It may be a safe rule to estimate the exact power required and then add two-fifths to the actual power as the required power.

With the above as an example you can estimate quite accurately the capacity of pump and power of engine you require for any given work.

We give below a table of the areas of pump cylinders from two to five inches in diameter.

DIAMETER.	AREA.	DIAMETER.	AREA.	DIAMETER.	AREA.
2 inches	3.1416	3½ inches	8.2957	4½ inches	15.904
2¼ "	3.9760	3¾ "	9.6211	4¾ "	17.720
2½ "	4.9087	3¾ "	11.044	5 "	17.665
2¾ "	5.9395	4 "	12.566		
3 "	7.0686	4¼ "	14.186		

A WORD ABOUT THE PIPES. The suction pipe is the pipe below the lower valves, whether the valves are in the pump itself or in a cylinder a number of feet below the pump, but above the surface of the water.

The suction pipe should be fully half the diameter of the cylinder of the pump; and when the suction pipe is long in vertical height it should be a little larger than this.

The size of discharge pipe can be a fraction smaller than the suction pipe in a single-acting pump, but in a double-acting pump should be the same size. Great care should be taken to have the suction pipe absolutely air tight.

"Suction pipe may extend horizontally to almost any length if air tight, but in this case, as in that of long vertical pipe, it is well to use a foot or check valve, provided the pipe is protected from the frost. A large diameter of pipe should be employed in this case also. Turns or elbows should be avoided in both suction and discharge pipes as far as possible."

For much of the above information we are indebted to the catalogue of **The Gould Manufacturing Company.**

SPECIAL NOTICE. If you are in want of a pump of greater capacity than the Alert, please give us the following facts:

1st. The number of feet from top of well to average top of the water.

2nd. The number of feet from top of well where pump will stand to top of cistern or tank.

3rd. The distance from pump to cistern or tank.

4th. Is pipe to run on a level or a rise? If on a rise, how much?

5th. The amount of water necessary to be raised per hour.

6th. Make a rough diagram showing location of well, and the proposed location of pump, engine and tank, and send it to us.

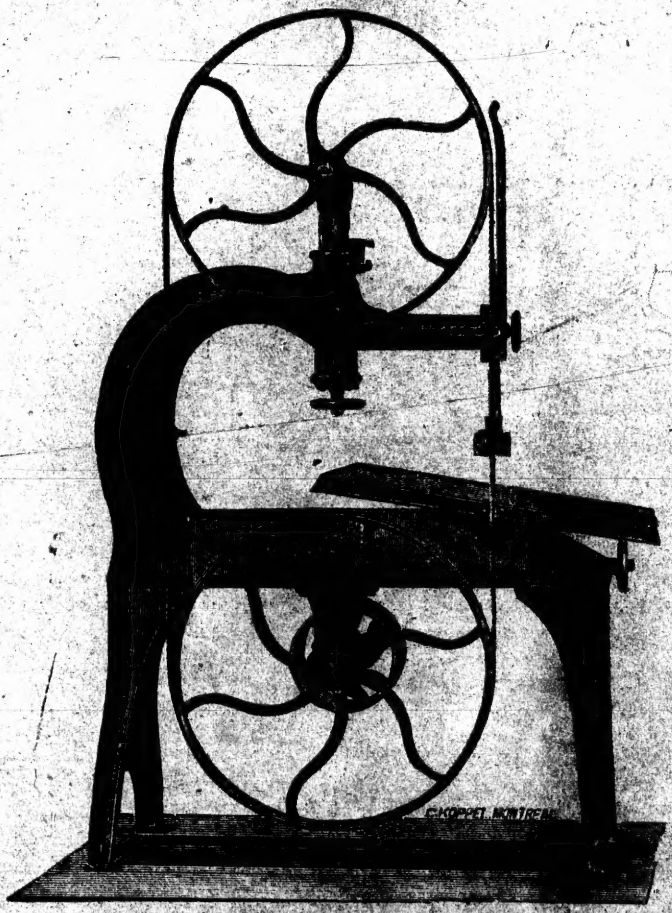
With this information we can give you very satisfactory replies to all questions.

JOHN GILLIES & CO.,
Carleton Place, Ont.

THE SHIPMAN AUTOMATIC ENGINE.

FOR PUMPING WATER IN CITY OR COUNTRY HOMES.

HEAVY BAND SAW WITH PEDESTAL.



The above cut represents our **Heavy Band Saw with Base or Pedestal.** It is the most convenient and durable machine on the market.

DIMENSIONS.

Wheels, 34 in. diameter. Table, 33½x33½ in.
Admits, 32½x9 in. Space, 60x34 in.
Vertical Extension, 8 in. Pulleys, 12x4 in.

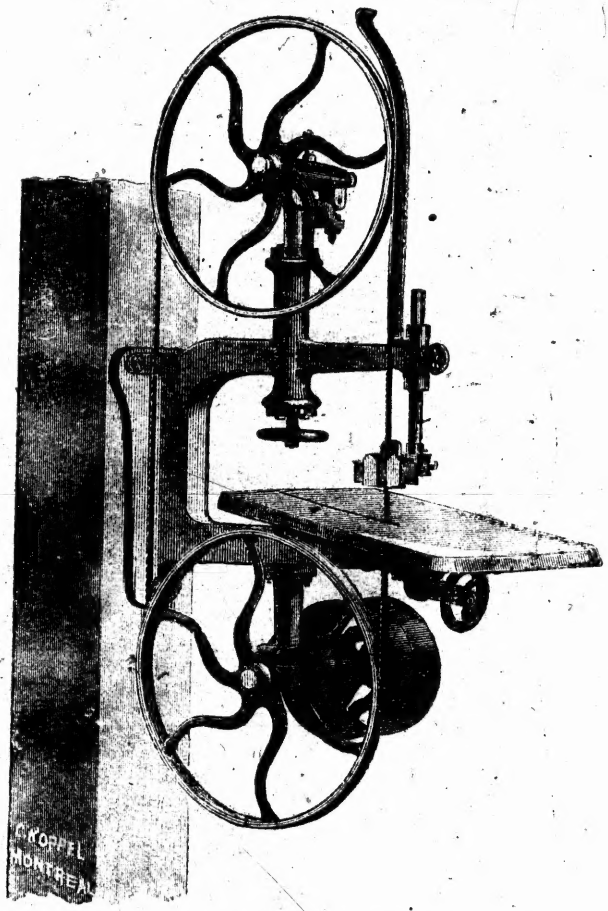
Should run at 350 revolutions per minute. Weight about 1100 lbs.

Price, $120, delivery f. o. b. cars here.

All machines tested in actual operation previous to shipment.

JOHN GILLIES & CO.,
Carleton Place, Ont.

BRACKET BAND SAW.

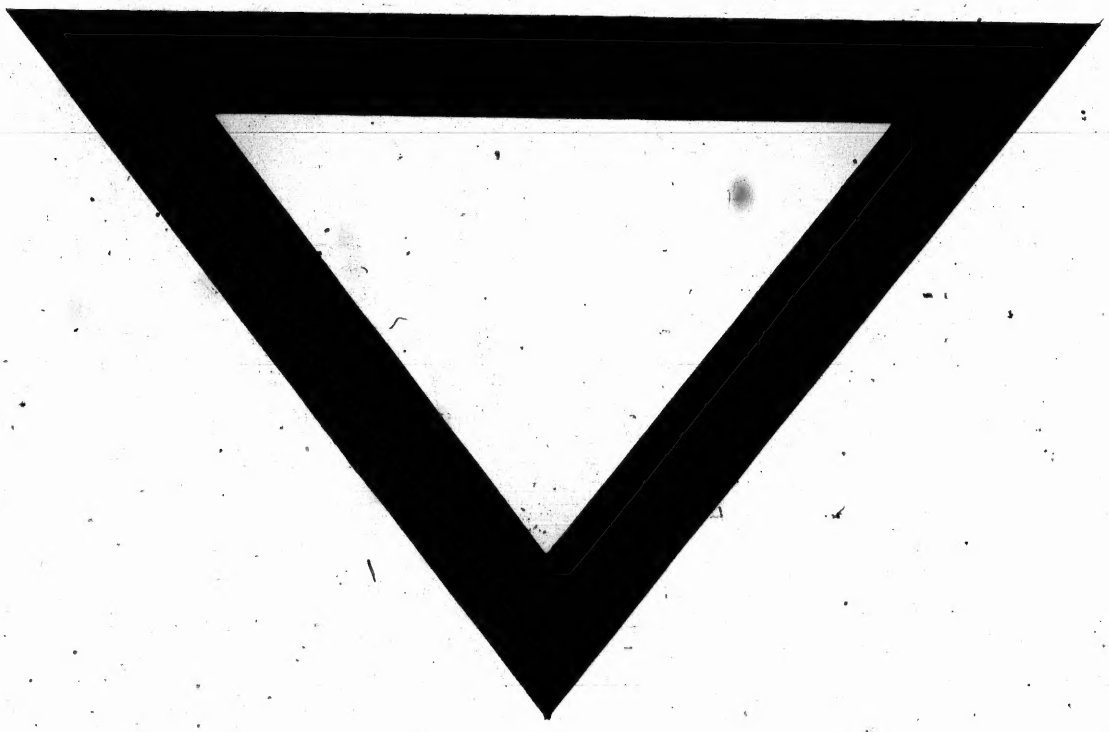


The above cut represents our **Improved Bracket Band Saw.** It will be observed that it is very neat in design, strong and durable, and furnished with all latest improvements. The iron table is planed true and has tilting attachment conveniently located. This machine can be attached to either wall or post. It weighs about 350 lbs. Dimensions as follows:

Wheels, 24 in. diameter. Table, 22x22 in.
Admits, 22x6½ in. Space, 38x26 in.

Vertical extension, 6 in. Pulleys, 12x3½ in., and should run 500 revolutions per minute.

All our machines are tested in actual operation before shipment.

Price, $85, f. o. b. cars here.

JOHN GILLIES & CO.,
Carleton Place, Ont.